What is claimed is:

1. An image processing device for processing image data inputted by image inputting means, said device comprising:

Original Images orthogonal transforming means for performing orthogonal transform on said image data to generate the frequency components of an original image,

Low Frequency Components extracting means for extracting the low frequency components from said frequency components of the original image,

High Frequency Components encoding means for finding and encoding relation information between said low frequency and the remaining high frequency components of said frequency components of the original image, and

Codes Synthesizing means for synthesizing said low frequency components and said relation information and generating simplified image data.

2. The image processing device of claim 1 which comprises:

Low Frequency Components compression means for compressing the data size of said low frequency components and

wherein said Codes Synthesizing means synthesizes the low frequency components compressed by said Low Frequency Components compression means and said relation information and generates simplified image data.

3. The image processing device of claim 1 further comprising storage medium for storing said simplified image data.

4. The image processing device of claim 1 further comprising:

Reduced Images generating means for generating reduced images by performing inverse orthogonal transform on said low frequency components corresponding to a reduction size specified in advance, and

Reduced Images displaying means for displaying said reduced images.

5. An image processing device which comprises:

Low Frequency Components decoding means for extracting low frequency components from the simplified image data obtained by synthesizing the low frequency components extracted from the frequency components of an original image obtained by performing orthogonal transform on the original image and the relation information between said low frequency components and the remaining high frequency components, and

High Frequency Components decoding means for taking out said relation information from said simplified image data and decoding the high frequency components on the basis of said low frequency components, and said relation information and,

Original Images outputting means for combining said low frequency components and said high frequency components, performing inverse orthogonal transform, and restoring and outputting the original image.

6. The image processing device of claim 5 for taking out said simplified image data from the storage medium.

7. An image processing device for processing image data inputted

by image inputting means, said device comprising:

Original Images orthogonal transforming means for performing orthogonal transform on said image data to generate the frequency components of an original image,

Shortage Components estimating means for estimating from said frequency components of the original image the shortage frequency components when the original image is enlarged in accordance with a desired enlargement ratio,

Basic Components extracting means for extracting frequency components – as basic components – necessary for restoring a basic image with the size specified in advance from said frequency components of the original image and said estimated frequency components,

Multiple Image encoding means for finding and encoding the relation information between said basic components and said estimated frequency components, and

Multiple Codes Synthesizing means for synthesizing said basic components and said relation information and generating multiple simplified image data.

8. The image processing device of claim 7 which comprises:

Basic Components compression means for compressing the data size of said basic components, and

Codes Synthesizing means for synthesizing the basic components compressed by Basic Components compression means and said relation information and generating the simplified image data.

9. The image processing device of claim 7 which comprises a storage medium for storing said multiple simplified image data.

10. The image processing device of claim 7 which comprises:

Basic Images generating means for generating basic images by performing inverse orthogonal transform on said basic components, and

Basic Images displaying means for displaying said basic images.

11. An image processing device which comprises:

Basic Components decoding means for taking out basic components from multiple simplified image data generated on the basis of basic components extracted from the frequency components of a plurality of images of enlarged sizes to restore a basic image with the size specified in advance and the relation information between said basic components and the remaining high frequency components of the enlarged image,

Object Frequency decoding means for taking out the relation information between said basic components and high frequency components of an enlarged image of a desired size from said multiple simplified image data and decoding said high frequency components on the basis of said basic components and said relation information, and

Object Images outputting means for combining said basic components and said high frequency components, performing inverse orthogonal transform, and restoring and outputting said enlarged image of the desired size.

12. The image processing device of claim 11 wherein said multiple simplified image data is taken out from said memory medium.

13. The image processing device of claim 12 wherein the data starts to be taken out from said memory medium on the basis of an

instruction signal from the user.

14. An image processing device for processing image data inputted by image inputting means, said device comprising:

Inter-picture element interpolating means for performing interpolation between picture elements on said image data in accordance with a desired enlargement ratio

Convolution means for convoluting the interpolated enlarged image obtained by said inter-picture element interpolating means,

Convergence judging means for judging if pre-set convergence conditions are satisfied on the basis of the difference between the mean values of convolution values of the enlarged image obtained at the k-th convolution and the enlarge image obtained at the (K - 1)-th convolution, and

Enlarged Images output means for outputting the enlarged image obtained at the k-th convolution in case Convergence judging means judges that the convergence conditions are satisfied.

15. An image processing method which comprises the steps of:

low frequency component extracting for extracting low frequency components from the frequency components of a specific image,

high frequency component encoding for finding relation information between said low frequency components and the remaining high frequency components, and

simplified image synthesizing for synthesizing said low frequency components and said relation information to generate simplified image data.

16. An image processing method which comprises the steps of:

low frequency component extracting for extracting low frequency components from the frequency components of a specific image,

high frequency component encoding for finding relation information between said low frequency components and the remaining high frequency components,

synthesizing for synthesizing said low frequency components and said relation information to generate simplified image data,

decoding for decoding said low frequency components and said relation information from said simplified image data, and

image outputting for combining said decoded low frequency components and said relation information, performing inverse orthogonal transform, then outputting said specific image.

17. An image processing method which comprises a step of:

basic component extracting for extracting low frequency components – as basic component – that can be regarded as common to the images of the respective sizes from the frequency components of an image of a specific size and enlarged images of said image of the specific size,

multiple image encoding for finding the relation information between said basic component and the remaining high frequency components of the respective enlarged images, and

multiple simplified image synthesizing for synthesizing said basic component and said relation information to generate multiple simplified image data.

18. An image processing method which comprises the steps of:

basic component extracting for extracting low frequency

components – as basic component – that can be regarded as common to the images of the respective sizes from the frequency components of an image of a specific size and a plurality of enlarged images of said image of the specific size,

multiple encoding for finding the relation information between said basic component and the remaining high frequency components of the respective enlarged images,

object frequency decoding for decoding said basic components and said relation information from the multiple simplified image data obtained by synthesizing said basic components and said relation information, and

image outputting for enlarging said specific image to a desired size by combining said decoded basic components and said relation information and performing inverse orthogonal transform and then outputting said enlarged image.

19. A recorded medium on which a program is recorded, said program extracting low frequency components from the frequency components of a specific image, finding the relation information between said low frequency components and the remaining high frequency components, synthesizing said low frequency components and said relation information to generate simplified image data.

20. A recorded medium on which a program is recorded, said program extracting low frequency components from the frequency components of a specific image, finding the relation information between said low frequency components and the remaining high frequency components, generating simplified image data by synthesizing said low frequency components and said relation information and at the same time

decoding said low frequency components and said relation information from said simplified image data, combining said decoded low frequency components and said relation information, and performing orthogonal transform, thereby outputting said specific image.

21. A recorded medium on which a program is recorded, said program extracting low frequency components – that can be regarded as common to the images of the respective sizes – as basic components from the frequency components of an image of a specific size and enlarged images of said image of the specific size, finding the relation information between said basic components and the remaining high frequency components, and synthesizing said basic components and said relation information, thereby generating multiple simplified image data.

22. A recorded medium on which a program is recorded, said program extracting low frequency components – that can be regarded as common to images of the respective sizes – as basic components from an image of a specific size and the frequency components of a plurality of enlarged images, finding the relation information between said basic components and the remaining high frequency components of the respective enlarged images, and decoding said basic components and said relation information from multiple simplified image data obtained by synthesizing said basic components and said relation information, and at the same said combining decoded basic components and said relation information and enlarging said specific image to a desired size by performing inverse orthogonal transform, and then outputting said specific image.

23. An image processing device for acquiring an enlarged image by enlarging a specific image data to a desired enlargement size, said device comprising:

Original Images orthogonal transforming means for generating the frequency components of an original image by performing orthogonal transform on said specific image data,

Enlarged Frequency estimating means for estimating the frequency components of said enlarged image by performing nonlinear interpolation on said original image frequency components, and

Inverse orthogonal transform means for acquiring an enlarged image data by performing inverse orthogonal transform corresponding to said enlargement size on said estimated frequency components of the enlarged image.

24. An image processing device for acquiring an enlarged image by enlarging a specific image data to a desired enlargement size, said device comprising:

Original Images orthogonal transforming means for generating the frequency components of an original image by performing orthogonal transform on said specific image data,

Edge Generating means for generating edge image data of said specific image data by performing a specific edge detection on said specific image data,

Enlarged Edge estimating means for estimating the frequency components of an enlarged edge image on the basis of said edge image data,

Low Frequency Component substituting means for generating substituted frequency components by substituting the low frequency area

of the frequency components of said estimated enlarged edge image with said original image frequency components and

Inverse orthogonal transform means for acquiring said enlarged image by performing inverse orthogonal transform on said substituted frequency components.

25. The image processing device of claim 24 wherein said Enlarged Edge estimating means is provided with:

Enlarged Edge approximating means for estimating the edge image data of said enlarged image by performing linear approximation on said edge image data, and

Edge Frequency generating means for finding the frequency components of said edge image data of said enlarged image by orthogonal transform.

26. The image processing device of claim 24 wherein said Enlarged Edge estimating means is provided with:

Edge Images orthogonal transforming means for generating the frequency components of said edge image data by orthogonal transform and

Edge Frequency estimating means for estimating the frequency components of edge image data after enlargement on the basis of the frequency components of said generated edge image data.

27. The image processing device of claim 25 wherein said Edge Frequency generating means estimates the frequency components of the edge image data after enlargement by performing linear interpolation on the frequency components of the edge image data obtained by said Original

Images orthogonal transforming means.

28. The image processing device of claim 25 wherein said Edge Frequency estimating means estimates the frequency components of the edge image data after enlargement by applying a nonlinear interpolation technique to the frequency components of the edge image data obtained by Original Images orthogonal transforming means.

29. An image processing device for acquiring an enlarged image by enlarging a specific image data to a desired enlargement size, said device comprising:

Block dividing means for dividing said specific image data into a plurality of overlapped blocks,

Block Images Orthogonal transform means for generating the frequency components of images within the blocks by performing orthogonal transform on the images within the blocks obtained by said block dividing means,

Enlarged Block Images frequency estimating means for estimating the frequency components of enlarged images of the images within the blocks on the basis of the frequency components of said images within the blocks,

Block frequency extracting means for extracting frequency components within the blocks from said estimated frequency components, said frequency components being necessary for said enlarged image,

Block Inverse orthogonal transform means for acquiring an enlarged block image by performing inverse orthogonal transform – corresponding to the size of said frequency components within the blocks – on said frequency components within the blocks, and

Enlarged Images recomposing means for acquiring said enlarged image by combing a plurality of said enlarged blocks.

30. An image processing device for acquiring an enlarged image by enlarging a specific image data to a desired enlargement size, said device comprising:

Block dividing means for dividing said specific image data into a plurality of not overlapped blocks,

Block data transforming means for transforming said image data within the blocks on the basis of a specific transform function so that specific border conditions are satisfied on the border of said blocks,

Block Images Orthogonal transform means for generating the frequency components of the images within the blocks by performing orthogonal transform on said transformed image data within the blocks,

Enlarged Block Images frequency estimating means for estimating the frequency components of enlarged images of the images within the blocks on the basis of the frequency components of said images within the blocks,

Block inverse orthogonal transform means for acquiring an enlarged block image by performing orthogonal transform – corresponding to the frequency component size of said enlarged images – on the frequency components of said estimated enlarged images, and

Enlarged Images recomposing means for acquiring said enlarged image by combining a plurality of said enlarged block images.

31. An image processing device for acquiring an enlarged image by enlarging a specific image data to a desired enlargement size, said device comprising:

Shortage Component enlarging means component for selecting a standard from among the color components making up said color image,

Transform Ratio deriving means for deriving the transform ratio which is used when data on the other color components is derived from said basic component data,

Standard Image orthogonal transforming means for generating the frequency component of the basic component by performing orthogonal transform on said basic component data,

Standard Enlarged Frequency estimating means for estimating the frequency components of an enlarged image from the frequency components of said standard component,

Standard Inverse orthogonal transforming means for acquiring the enlarged image data of the standard component by performing inverse orthogonal transform – corresponding to the frequency component size of said enlarged image – on the frequency component of the enlarged image of said standard component,

Shortage Component enlarging means for estimating the other color component data in said enlarged image on the basis of the enlarged image data of said standard component and said transform ratio,

Enlarged Color Image recomposing means for generating said enlarged image by synthesizing the enlarged image data of said standard component and said other color component data.

32. An image processing method for acquiring an enlarged image by enlarging a specific image data to a desired enlargement size, said method comprising the steps of:

original image orthogonal transforming for performing orthogonal transform on said specific image data to generate the frequency

components of the original image,

enlarged frequency estimating for estimating the frequency components of said enlarged image by performing nonlinear interpolation on the frequency component of said original image, and

inverse orthogonal transforming for performing inverse orthogonal transform – corresponding to said enlarged size – on the frequency components of said estimated enlarged image to acquire enlarged image data.

33. An image processing method for acquiring an enlarged image by enlarging a specific image data to a desired enlargement size, said method comprising the steps of:

original image orthogonal transforming for performing orthogonal transform on said specific image data to generate the frequency components of an original image,

edge generating for generating the edge image data of said specific data by a specific method,

enlarged edge estimating for estimating the edge image data of said enlarged image by performing linear approximation on said edge image data,

edge image frequency generating for finding the frequency component of the edge image data of said enlarged image by orthogonal transforming step,

low frequency substituting for generating a substituted frequency component by substituting the low frequency area of the frequency component of said edge image data with said original image frequency component, and

inverse orthogonal transforming for inverse orthogonal

transforming said substituted frequency component.

34. An image processing method for acquiring an enlarged image by enlarging a specific image data to a desired enlargement size, said method comprising the steps of:

original image orthogonal transforming for performing orthogonal transform on said specific image data to generate an original image frequency component,

edge generating for generating the edge image data of said specific image data by a specific method,

edge image orthogonal transforming for generating the frequency component of said edge image data by orthogonal transforming,

edge frequency estimating for estimating the frequency component area of the edge image after enlargement on the basis of the frequency components of said generated edge image, and

low frequency substituting for substituting the low frequency area of the frequency component of said edge image after enlargement with said original image frequency component.

35. The image processing method of claim 34 wherein said edge frequency estimating step estimates the frequency component of the edge image data after enlargement by performing linear approximation on the frequency component of the edge image data obtained in said original image orthogonal transforming.

36. The image processing method of claim 34 wherein said edge frequency estimating step estimates the frequency component of the edge image data after enlargement by applying a nonlinear interpolation

technique on the frequency component of the edge image data obtained in said original image orthogonal transforming step.

37. An image processing method for acquiring an enlarged image by enlarging a specific image data to a desired enlargement size, said method comprising the steps of:

block dividing for dividing said specific image data into a plurality of overlapped blocks,

image orthogonal transforming for generating the frequency components of the images within the blocks by performing orthogonal transform on the images within said blocks obtained in said block dividing step,

enlarged block image frequency estimating for estimating the frequency components of the enlarged images of the images within the blocks on the basis of the frequency components of the images within the blocks,

in-block frequency extracting for extracting the frequency component within the block – necessary for said enlarged images – from said estimated frequency components,

block orthogonal transforming for acquiring enlarged block images by performing inverse orthogonal transform – corresponding to the sizes of the frequency components within said blocks – on said frequency components with the blocks, and

enlarged image composing for acquiring said enlarged images by combing a plurality of said enlarged block images.

38. An image processing method for acquiring an enlarged image by enlarging a specific image data to a desired enlargement size, said method

comprising the steps of:

block diving for dividing said specific image data into a plurality of not overlapped blocks,

in-block data transforming for transforming the image data within said blocks on the basis of a specific transform function so that specific border conditions are satisfied on the border of said blocks,

block image orthogonal transforming for generating the frequency components of the images within the blocks by performing orthogonal transform on said transformed image data within the blocks,

enlarged block image frequency estimating for estimating the frequency components of the enlarged images within the blocks on the basis of the frequency components of the images within said blocks,

block inverse orthogonal transforming for acquiring enlarged images by performing inverse orthogonal transform – corresponding to the frequency component sizes of said enlarged images – on the frequency components of said estimated enlarged images, and

image composing for acquiring said enlarged images by combining a plurality of said enlarged block images.

39. An image processing method for acquiring an enlarged image by enlarging a specific image data to a desired enlargement size, said method comprising the steps of:

standard component selecting for selecting a standard color component within the color components making up said specific color image,

transform ratio deriving for deriving the transform ratio which is used when the other color component data are derived from said standard component data,

standard image orthogonal transforming for generating the frequency component of the standard component by performing orthogonal transform on the data of said basic component,

standard enlarged frequency estimating for estimating the frequency components of the enlarged images from the frequency component of said standard component,

standard inverse orthogonal transform for acquiring the enlarged image data of the standard component by performing inverse orthogonal transform – corresponding to the size of the frequency component of said enlarged image– on the frequency component of the enlarged image of said standard component,

shortage component enlarging for estimating the other color component data in said enlarged image on the basis of the enlarged image data of said standard component and said transforming ratio, and

enlarged color image re-composing for generating said enlarged image by synthesizing the enlarged image data of said standard component and said other color component data.

40. A recorded medium on which a program is recorded, said program – when obtaining an enlarged image by enlarging a specific image data to a desired enlargement size – generating the frequency component of an original image by performing orthogonal transform on said specific image data, estimating the frequency component of said enlarged image by performing nonlinear interpolation on said original image frequency component, and performing inverse orthogonal transform corresponding to said enlarged size on the frequency component of said estimated enlarged image, thereby acquiring said enlarged image.

41. A recorded medium on which a program is recorded, said program – when obtaining an enlarged image by enlarging a specific image data to a desired enlargement size – generating the frequency component of an original image by performing orthogonal transform on said specific image data and at the same time generating the edge image data of said specific image data by a specific method, estimating the enlarged image by performing linear approximation on said edge image data, finding the frequency component of the edge image data of said enlarged image by orthogonal transform, generating a substituted frequency component by substituting the low frequency area of said frequency component the enlarged edge image with said original image frequency component, and performing inverse orthogonal transform on said substituted frequency component, thereby acquiring said enlarged image.

42. A recorded medium on which a program is recorded, said program – when obtaining an enlarged image by enlarging a specific image data to a desired enlargement size – generating the frequency component of the original image by performing orthogonal transform on said specific image data and at the same time generating the edge image data of said specific image data by a specific method, generating the frequency component of said edge image data by orthogonal transform, estimating the frequency area of the edge image after enlargement on the basis of the frequency component of said edge image, and substituting the low frequency area of the frequency component of said edge image after enlargement with said original image frequency component.

43. A recorded medium on which a program is recorded, said program – when obtaining an enlarged image by enlarging a specific image

data to a desired enlargement size – dividing the specific image data into a plurality of overlapped blocks, generating the frequency components of the images within the blocks by performing orthogonal transform on the images within the blocks thus obtained, estimating the frequency components of enlarged images within the blocks on the basis of the frequency components of the images within said blocks and at the same time extracting the frequency components within blocks necessary for said enlarged images from said estimated frequency components, acquiring enlarged block images by performing inverse orthogonal transform – corresponding to the sizes of the frequency components within said blocks – on said frequency components within the blocks, and combing a plurality of said enlarged block images, thereby acquiring said enlarged image.

44. A recorded medium on which a program is recorded, said program – when obtaining an enlarged image by enlarging a specific image data to a desired enlargement size – dividing the specific image data into a plurality of not overlapped blocks, transforming the image data within said blocks on the basis of a specific transform function so that specific border conditions are satisfied on the border of said block, generating the frequency components of images within the blocks by performing orthogonal transform on said transformed image data within the blocks, and at the same time estimating the frequency components of the enlarged images of the images within the blocks on the basis of the frequency components within said images within the blocks, acquiring enlarged block images by performing inverse orthogonal transform – corresponding to the frequency component size of said enlarged images – on said enlarged image frequency components, and combining a plurality of said enlarged block images, thereby obtaining said enlarged image.

45. A recorded medium on which a program is recorded, said program – when obtaining an enlarged image by enlarging a specific image data to a desired enlargement size – selecting a standard color component from among the color components making up said specific color image, deriving a transform ratio which is used when the other color component data are derived from said standard component data, generating the frequency component of the standard component by performing orthogonal transform on said standard component data, estimating the frequency component of the enlarged image from the frequency component of said standard component and at the same time acquiring the enlarged image data of the standard component by performing inverse orthogonal transform – corresponding to the frequency component size of said enlarged image – on the frequency components of said standard component, and estimating the other color component data in said enlarged image on the basis of the enlarged image data of said standard component and said transform ratio, thereby obtaining said enlarged image.

46. An image processing device for acquiring an enlarged image of Ln picture elements x Lm picture elements by enlarging an original image of n picture elements x m picture elements, said device comprising:

Inputted Images regulating means for interpolating or thinning out (hereinafter both expressed as regulate) said original image to Ln/2 picture elements x Lm/2 picture elements and

Image enlarging means for generating an enlarged image by applying an enlargement technique based on Wavelet transform on the image regulated by Inputted Images regulating means .

47. An image processing device for acquiring an enlarged image by enlarging an original image, said device comprising:

Enlarging Process initializing means for setting the original image as an enlargement object image,

Enlarging Object Images means for generating an enlarged image having four times as many picture elements by applying an enlargement technique based on Wavelet transform to said enlargement object image,

Multiple Processing ending judge means for setting said enlarged image – obtained from Enlarging Object Images means – as enlargement object image and returns the process to Enlarging Object Images means,

Enlarged Images presenting means for visually presenting an enlarged image obtained from Enlarging Object Images means,

Image fine-adjustment means for enlarging or reducing the enlarged image presented by said Enlarged Images presenting means,

Enlarged Images output means for outputting an image obtained from said image fine-adjustment means.

48. The image processing device of claim 46 or claim 47 wherein said Enlarging Object Images means comprising:

Edge generating means for generating edge images – in a plurality of specific directions – of an image regulated by said Inputted Images regulating means , and

Leveling up means for generating an image having four times as many picture elements by regarding said respective edge images and said regulated original image as sub-band components in Wavelet transform and by performing inverse Wavelet transform on said sub-band components.

49. The image processing device of claim 48 wherein a plurality of said directions are three directions – vertical, horizontal and oblique.

50. The image processing device of claim 46 or claim 47 wherein said Enlarging Object Images intializing means comprising:

Input fine-adjustment means for re-regulating the numbers of the picture elements of said regulated original image in the horizontal direction and the vertical direction to multiples of 2,

Leveling down means for generating a transformed image by performing Wavelet transform on said re-regulated original image,

Reference Components generating means for generating edge images – in a plurality of said specific directions – from a plurality of sub-band components situated in the of said transformed image,

Edge generating means for generating edge image – in plurality of specific direction – of image re-regulated be said Input fine-adjustment means,

Correction estimating means for finding the relation between said respective edge images and the sub-band components belonging to the low frequency space corresponding to said specific directions of said transformed images,

Component estimating means for estimating the respective sub-band components in Wavelet transform by correcting said respective edge image of re-regulated original image according to the results of said correction estimating means, and

Leveling up means for generating an enlarged image having four times as many picture elements by performing inverse Wavelet transform on said respective sub-band components and said re-regulated original

image.

51. The image processing device of claim 50 wherein Reference Components generating means finds said edge image by Laplacian filter from the sub-band components situated in the low frequency area of said transformed image.

52. The image processing device of claim 46 or claim 47 wherein in case said Ln/2 picture elements and Lm/2 picture elements are integers, an inputted original image is regulated by said Inputted Images regulating means, and from the regulated image, said Enlarging Object Images means generates an enlarged image, and wherein in case at least one of Ln/2 picture elements and Lm/2 picture elements is not an integer, the inputted original image is regulated by said Inputted Images regulating means , and from the regulated image, said Enlarging Object Images means generates an enlarged image, and then the enlarged image obtained by Enlarging Object Images means is regulated to Ln picture elements x Lm picture elements by means for regulating enlarged image.

53. An image processing device for acquiring an enlarged image of Ln picture elements x Lm picture elements by enlarging a color image of n picture elements x m picture elements, said device comprising:

Standard Component selecting means for selecting a standard color component from among the components making up said color image,

Transform Ratio deriving means for deriving the transform ratio which is used when deriving the other color components from the standard color selected by said Standard Component selecting means,

Standard Component Image regulating means for regulating the

standard color component of the inputted original image to Ln/2 picture elements x Lm/2 picture elements,

Standard Image enlarging means for generating a standard enlarged image by applying a method based on Wavelet transform to said regulated standard color component,

Standard Enlarged Image regulating means for regulating said standard enlarged image to a desired size Ln picture elements x Lm picture elements,

Shortage Component enlarging meanss for estimating the enlarged images of the other color components by applying said transform ratio to said regulated standard enlarged image, and

Enlarged Color Image recomposing means for generating said enlarged image by synthesizing said standard enlarged image and said enlarged images of the other color components.

54. The image processing device of claim 50 wherein said correction estimating means finds the difference image – as respective correction component image – between the edge images in said respective directions and the sub-band components belonging to the low frequency area corresponding to said specific directions of said transformed images, and wherein said component estimating means enlarges said respective correction component images to images with four times as many picture elements by liner interpolation, and adds the corresponding edge images to said correction component images.

55. An image processing method for acquiring an enlarged image of Ln picture elements x Lm picture elements by enlarging an original image of n picture elements x m picture elements, said method comprising the

steps of:

inputted image regulating for regulating said original image to Ln/2 picture elements x Lm/2 picture elements, and

image enlargement for generating an enlarged image by applying an enlargement method based on Wavelet transform to the image regulated by Inputted Images regulating means .

56. An image processing method for acquiring an enlarged image by enlarging an original image, said method comprising the steps of:

enlargement initializing for initializing the enlargement process by setting the original image as enlargement object image,

object image enlarging for generating an enlarged image having four times as many picture elements by applying an enlargement method based on Wavelet transform to said enlargement object image,

multiple proceeding end judging for setting – as enlargement object image – the enlarged image obtained by said Enlarging Object Images means and returns the process to said Enlarging Object Images means

enlarged image presenting for visually presenting the enlarged image obtained by said Enlarging Object Images means,

image regulating for enlarging or reducing the enlarged image presented by said Enlarging Object Images means, and

enlarged image outputting for outputting the image obtained from said image fine-adjustment means.

57. A recorded medium on which a program is recorded, said program – when acquiring an enlarged image of Ln picture elements x Lm picture elements by enlarging a color image of n picture elements x m picture elements – regulating said original image to Ln/2 picture elements

x Lm/2 picture elements, and applying an enlargement method based on Wavelet transform to the regulated image, thereby generating an enlarged image.

58. A recorded medium on which a program is recorded, said program – when acquiring an enlarged image by regulating an original image – setting the original image as enlargement object image, and generating an enlarged image having four times as many picture elements by applying an enlargement method based on Wavelet transform to said enlargement object image, setting the enlarged image as enlargement object image and returning the process to Enlarging Object Images means and at the same time visually presenting the enlarged image, thereby enlarging or reducing said enlarged image.